



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/796,273

03/10/2004

Oran Uzrad-Nali

112-0367US

9389

85197

7590

02/26/2009

Wong Cabello Lutsch Rutherford & Brucculeri LLP
203333 Tomball Parkway, Suite 600
Houston, TX 77070

EXAMINER

NGUYEN, MERILYN P

ART UNIT

PAPER NUMBER

2163

MAIL DATE

DELIVERY MODE

02/26/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/796,273	Applicant(s) UZRAD-NALI ET AL.	
	Examiner Merilyn P. Nguyen	Art Unit 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/23/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 39-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 39-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-19 and 39-59 are pending in this application.

Priority

2. Applicant's claim for the benefit of a prior-filed application Serial No. 60/452969 under 35 U.S.C. 119(e) is acknowledged.

Claim Objections

3. Claim 46 is objected to because of the following informalities: At line 3, "each to each" is suggested to change to --to each--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-19 and 39-59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, there is insufficient antecedent basis for "said VWB", does Applicant mean said VWB entry? And there is insufficient antecedent basis for "the incoming data record".

Regarding claim 12, there is insufficient antecedent basis for "the memory address space".

Art Unit: 2163

Regarding claims 16, 17 and 19, there is insufficient antecedent basis for “the reassembled data record” and “said reassembled data record”.

Regarding claim 16, there is insufficient antecedent basis for “the address space of said VWB entry”.

Regarding claim 18, there is insufficient antecedent basis for “the address of said private buffer”.

Regarding claim 39, the claim recites a network controller comprising a core processor, a receive handler, a direct memory access controller, a local memory which are not interrelated or connected to each other to constitute a useful or practical machine.

Regarding claim 44, the claim recites “a virtual write buffer (VWB) in a VWB table” which is vague and indefinite.

Regarding claim 47, there is insufficient antecedent basis for “said segment”.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-13 and 39-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Jun (US 6,421,343).

Art Unit: 2163

Regarding claims 1 and 39, Jun discloses a method for accelerating storage access in a network, said method comprising:

- a) receiving a data record having a plurality of data segments (See col. 3, lines 57-59);
- b) saving said data segments in a local memory of a network controller (NC) (See col. 3, lines 63-65);
- c) assigning a virtual write buffer (VWB) entry, in said NC local memory, for the incoming data record (See col. 6, lines 30-45);
- d) reassembling said data segments of said data record using said VWB (See col. 6, lines 45-53 and col. 7, lines 22-26); and,
- e) sending said data record from the network controller directly to an I/O controller of a storage device (See col. 3, lines 48-51 and col. 6, lines 53-55).

Jun discloses a network controller comprising a core processor, a receive handler, a direct memory access controller, a local memory at Figures 2 and 3 as per claim 39.

Regarding claims 2 and 45, Jun further discloses allocating a private buffer in a host local memory (See col. 6, lines 30-33).

Regarding claims 3 and 40, Jun discloses wherein said NC (ATM Network interface handler 103) is coupled to a storage target system and to a network (See Fig. 2).

Art Unit: 2163

Regarding claims 4, 43 and 44, Jun discloses wherein the data segments are virtually reassembled in said NC local memory to form a reassembled data record (See col. 7, lines 22-26).

Regarding claims 5 and 42, Jun discloses wherein said I/O controller is further coupled to a storage device (See Fig. 2).

Regarding claims 6 and 46, Jun discloses wherein the data is received using a sub-process comprising:

- i) performing a transport layer processing on the data segments (See col. 3, lines 57-59);
- and,
- ii) assigning a memory object descriptor (MOD) to each of the data segments (See col. 5, lines 10-25).

Regarding claims 7 and 47, Jun discloses wherein each said MOD points to a memory location where a corresponding data segment is stored in the NC local memory (See col. 5, lines 10-25).

Regarding claims 8 and 48, Jun discloses wherein said MODS are linked together to form a record structure (See col. 5, lines 20-32).

Art Unit: 2163

Regarding claims 9 and 49, Jun discloses wherein an available private buffer is used from a pool of pre-allocated private buffers (See col. 6, lines 32-42).

Regarding claims 10 and 50, Jun discloses wherein said NC maintains a VWB table, wherein said VWB table includes at least a VWB entry (See col. 7, lines 22-26).

Regarding claims 11 and 51, Jun discloses wherein said VWB entry comprises at least two subentries, wherein a first sub-entry is an offset field and a second sub-entry is a pointer field (See col. 6, line 66 to col. 7, line 11).

Regarding claims 12 and 52, Jun discloses wherein the memory address space of said VWB entry is mapped to the memory address space of the allocated private buffer when the VWB entry is assigned (See col. 7, lines 22-26).

Regarding claims 13 and 53, Jun discloses wherein reassembling said data segments comprises setting said offset field and said pointer field (See col. 7, lines 1-11).

Regarding claim 41, Jun discloses wherein said network is a network attached storage (See Fig. 2).

Allowable Subject Matter

Art Unit: 2163

6. Claims 14 and 54 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

All the dependent claims 15-19 and 55-59 of claims 14 and 54 are also objected.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Oesterreicher US 2004/0006636 discloses optimized digital media delivery engine.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marilyn P Nguyen whose telephone number is 571-272-4026.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

Application/Control Number: 10/796,273

Page 8

Art Unit: 2163

/Merilyn Nguyen/

AU 2163

/don wong/

Supervisory Patent Examiner, Art Unit 2163